AMSAT News Service Weekly Bulletins
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SB ALL @ AMSAT $ANS-118.01
DOVE STATUS REPORT

HR AMSAT NEWS SERVICE BULLETIN 118.01 FROM AMSAT HQ
SILVER SPRING, MD APRIL 28, 1990
TO ALL RADIO AMATEURS BT

On the AMSAT-NA Operations Net of 22 April 90, Microsat command engineer Bob McGwier, N4HY gave a brief rundown on the current status of the BRAMSAT Project DOVE satellite. After a DOVE CPU crash in March, the primary transmitter (on 145.825 MHz) was locked on in a condition where no data was being transmitted. Routine commanding of the spacecraft was impossible. Eventually, with the help of the moonbounce array at W5UN and fortuitous circumstances, the CPU was reset and control was regained. On the following day, the two meter transmitter was turned off and the experimental S band transmitter was activated as the only downlink during an interim recovery period.

A decision was made not to resume any DOVE operation on two meters until a new software load could be accomplished. This meant that return packets from the Microsat Boot Loader (running in onboard ROM) would have to be recovered from the S band transmissions. DOVE's owner, BRAMSAT President Dr. Junior DeCastro, PY2BJO, provided N4HY with an S band receive converter and antenna system to be used in the recovery effort. When this equipment was installed at N4HY, Bob was able to verify what other S band receiving stations around the world (including ON6UG, K0RZ, and KF4AU) had already discovered, that the phase shift keying modulation index on the transmitter was much lower than expected. Simply put, the binary data does not shift the S band carrier a full plus and minus 180 degrees as it had been designed to. Listening on a sideband receiver, the signal sounds like mostly carrier with data only at a low volume. Additionally, data being sent via this transmitter is from the MBL which transmits incomplete telemetry packets, and those only infrequently. Command stations have experience with this data format, but it cannot be decoded directly by regular TNCs so it is difficult for other operators to participate in data collection though they may have S band gear.

Since the reset, it has been determined that DOVE is in a safe and stable condition running the MBL firmware. N4HY has developed a DSP based technique to decode with some certainty the undermodulated packets returned on DOVE S band during software uploads. He expects to be able to load and verify a new operating system on DOVE with some difficulty and then resume 2 meter transmissions. A full recovery is expected.

During the time required to get the S-band receive gear and demodulation techniques developed, work has been proceeding on the first, rudimentary PBBS systems for LUSAT and PACSAT. After these systems are installed and in use (very shortly), full attention will be concentrated on the DOVE recovery.

AMSAT-NA and BRAMSAT recognize the popularity of DOVE and regret the inconvenience that these startup delays have caused to educators and other amateurs worldwide who are anxious to see DOVE begin its operational mission. It is, of course, imperative that all facets of spacecraft checkout and operation, including this first crash recovery, be done thoroughly and with the utmost care.

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SB ALL @ AMSAT $ANS-118.02
PROJECT OSCAR MEETING REPORT

HR AMSAT NEWS SERVICE BULLETIN 118.02 FROM AMSAT HQ
SILVER SPRING, MD APRIL 28, 1990
TO ALL RADIO AMATEURS BT

Future Plans Made During Project OSCAR Meeting

Project OSCAR's Executive Committee met on April 22 and has set forth on a number of new projects. Among the items covered was renewed interest to again produce the Project OSCAR Orbital Prediction Calendar Book. The purpose of the orbital prediction book is to provide simple and inexpensive tracking information to anyone interested in the low orbiting satellites such as Microsat, UoSAT, Fuji and the Radio Sputnik series of amateur satellites.

It was determined that Project OSCAR members would like to participate in future satellite projects. Therefore, the Executive Committee will be submitting thoughts to the group meeting in Marburg, West Germany in May, discussing ideas on a Phase IIID satellite.

Project OSCAR will look to develop a Mode S receive system from available (and cost effective) modules now available on the market. Project OSCAR members will complete this project and write up a description of the system for publication in the Amateur Radio media so that anyone interested in Mode S will be able to make the move into this new area of OSCAR communication.

Finally, in response to many who have asked for information, Project OSCAR will sponsor a seminar about operating on all of the available Amateur Radio satellites. This seminar will take place on September 29th and 30th on the San Francisco Peninsula. In addition to a full schedule of talks aimed at the beginning and advanced satellite user, there will be demonstrations available, plus published papers provided to all in attendance. Complete details of this OSCAR seminar, along with names of the speakers scheduled to speak will appear in the AMSAT bulletins, on Packet and phone BBS', and the usual Amateur Radio Media. To receive complete registration information as soon as it's available, send a Self-Addressed Stamped Envelope (SASE) to:

OSCAR Seminar
Project OSCAR, Inc.
P. O. Box 1136
Los Altos, CA 94023-1136

[ANS thanks Project Oscar President, Ross Forbes, WB6GFJ for the information for this bulletin.]

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SB ALL @ AMSAT $ANS-118.03
R3MIR/7 ON THE AIR

HR AMSAT NEWS SERVICE BULLETIN 118.03 FROM AMSAT HQ
SILVER SPRING, MD APRIL 28, 1990
TO ALL RADIO AMATEURS BT

Club Station at Russian Launch Site Active.

R3MIR/7 is the clubstation in Bajkonur Cosmodrome (UL7-land). The operator most active at the present time is UA6HZ, Valery Agabekov. He is the one responsible for providing the FT-290 for the MIR mission 2 years ago.

[AMSAT thanks DB2OS and Leonid Labutin for supplying this bulletin]

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SB ALL @ AMSAT $ANS-118.04
UO-14 UPDATE

HR AMSAT NEWS SERVICE BULLETIN 118.04 FROM AMSAT HQ
SILVER SPRING, MD APRIL 28, 1990
TO ALL RADIO AMATEURS BT

New Bird is Hot Bed of High Speed Data Activity

The level of activity at 9600 baud on UO-14 demonstrates that it is relatively easy to become operational at that speed. A complete list of stations logged on the UoSAT-OSCAR-14 MHEARD list over the last week includes:

DF3LZ, DF5DP, DG3LAE, G0BDD, G3RUH, G4WFQ, G8TZJ, GM4IHJ, I2KBD, JA6FTL, JH1LVN, JH3FDA, JH7CKF, JR1EDE, JR1FRF, KA2MOV, KF4WQ, LU1BEE, LU8DYF, N4HY, ON6UG, VK3DTO, W7KRC.

It was reported that KA2MOV was able to connect to N4HY using 25 watts on transmit and omni-directional antennas for both transmit and receive.

UO-14's command team are planning to load increasingly sophisticated housekeeping software to the PCE this week. The new housekeeping software includes a "file system" for storing WOD and data frames from the Cosmic Particle Experiment (CPE). This data will be downlinked using the standard PACSAT Broadcast Protocol, inside AX.25 UI frames.

Once the housekeeping software is installed, Jeff Ward of the University of Surrey will begin working on the BBS software. This will be a host-mode BBS designed by Jeff and Harold Price, NK6K, specifically for the PACSATs.

[AMSAT thanks AMSAT-UK for the information for this bulletin]

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SB ALL @ AMSAT $ANS-118.05
AO-13 OPERATING SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 118.05 FROM AMSAT HQ
SILVER SPRING, MD APRIL 28, 1990
TO ALL RADIO AMATEURS BT

AO-13 Transponder Schedule to 09May90

Mode-B : MA 000 to MA 165
Mode-JL : MA 165 to MA 195
Mode-S : MA 195 to MA 200
Mode-BS : MA 200 to MA 205
Mode-B : MA 205 to MA 256
Omnis   : MA 240 to MA 060

BLON = 208 and BLAT = 0.1 for 30Apr90

Only the Mode-S transponder andd the Mode-B beacon will be ON from MA 195 to MA 200. Beginning in early May, there will be a transponder and attitude change on AO-13. During magnetorquing to BLON/BLAT 180/0 the transponders will be switched off from MA 200 to MA 060. After the attitude change, a new schedule will be announced.

AO-10 is currently experiencing poor solar panel illumination angles and until further notice its transponder is not available for use. It is expected that this will continue for several weeks.

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SB ALL @ AMSAT $ANS-118.06
OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 118.06 FROM AMSAT HQ
SILVER SPRING, MD APRIL 28, 1990
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule Announced

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on an AO-13 downlink frequency of 145.950. Mode J/L nets are conducted on an AO-13 downlink frequency of 435.970. The net on May 6 may be on Mode B or J/L depending on the transponder schedule at that time.

Date UTC	Time	Phs	Mode	NCS	U.S. Day
06 May 90	0145	168	***	N5BF	Saturday
13 May 90	0250	111	J/L	N5BF	Saturday
24 May 90	0205	112	J/L	TBD	Wednesday
04 Jun 90	0120	112	J/L	TBD	Sunday
15 Jun 90	0035	111	J/L	N5BF	Thursday
26 Jun 90	0150	156	B	N5BF	Monday

For information on the amateur satellite program and how you can participate, contact AMSAT-NA at P.O. Box 27, Washington, DC 20044, or phone (301) 589-6062, or contact your local AMSAT Area Coordinator.

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